

# **DOCKER**

<b>Student Name</b>	<b>vishwa</b>
<b>Maximum Marks</b>	<b>2 Marks</b>

## **Question-1:**

**pull an image from docker hub and run it in docker playground.**

**pull an image form docker hub**

```
Command Prompt
Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ADMIN>docker push shabariganesan/docker_with_flask_form
Using default tag: latest
The push refers to repository [docker.io/shabariganesan/docker_with_flask_form]
An image does not exist locally with the tag: shabariganesan/docker_with_flask_form

C:\Users\ADMIN>docker pull shabariganesan/docker_with_flask_form
Using default tag: latest
latest: Pulling from shabariganesan/docker_with_flask_form
1671565cc8df: Pull complete
3e94d13e55e7: Pull complete
fa9c7528c685: Pull complete
53ad072f9cd1: Pull complete
d6b983117533: Pull complete
d8092d56ded5: Pull complete
c71afc637d59: Pull complete
864a10b3c704: Pull complete
4334b2fe8293: Pull complete
8944570703f4: Pull complete
f885911288d8: Pull complete
086f369ca59f: Pull complete
e113bd27b88e: Pull complete
Digest: sha256:c61f28873bf1c909786ce991b8b60cd976765077f344e34d50e6cce8cf8d95c3
Status: Downloaded newer image for shabariganesan/docker_with_flask_form:latest
docker.io/shabariganesan/docker_with_flask_form:latest

C:\Users\ADMIN>
```

**run it in docker playground**



## Container Registry

Quick start

Namespaces

6

Repositories

2

Images

2

Trash

0

Settings



## RetsosItsrls

Location

Tokyo



Search



Name



job\_portal

jp.icr.io/ganesh/job/job\_portal



docker\_with\_flask\_form

jp.icr.io/newnamispace/docker\_with\_flask\_fm

Items per page:

25



1-2 of 2 items



Containers



Images



Volumes

Dev Environments BETAExtensions BETA

Add Extensions

## Containers [Give Feedback](#)

A container packages up code and its dependencies so the application runs in an environment as another. [Learn more](#)

Showing 2 items

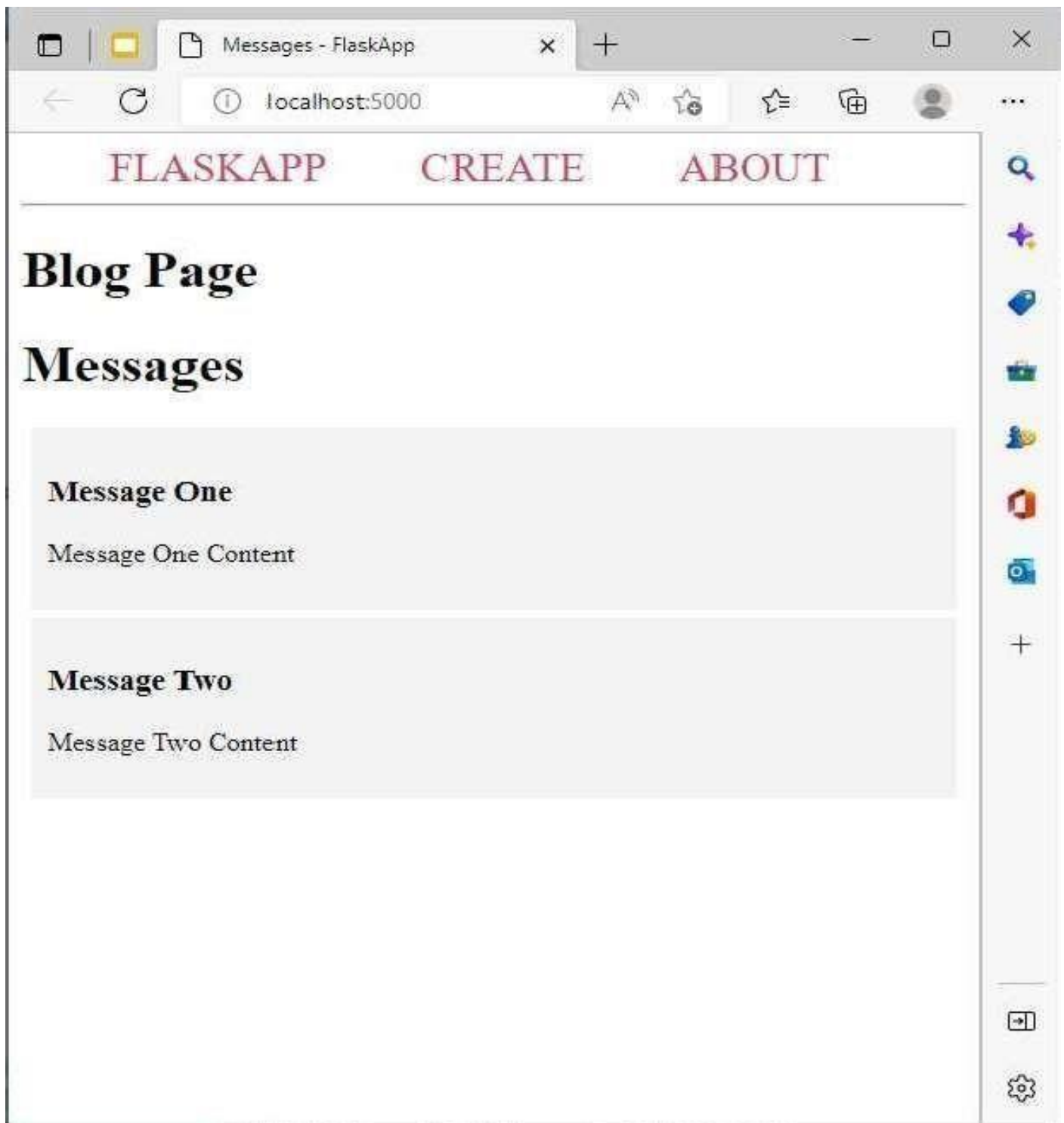
<input type="checkbox"/>		NAME	IMAGE	STATUS	
<input type="checkbox"/>		funny_shirley 8ee929159404	<a href="#">docker/get</a>	Exited	8
<input type="checkbox"/>		determined_m cc3e98e68102	<a href="#">shabatigar</a>	Running	5



RAM 2.86GB

CPU 9.39%

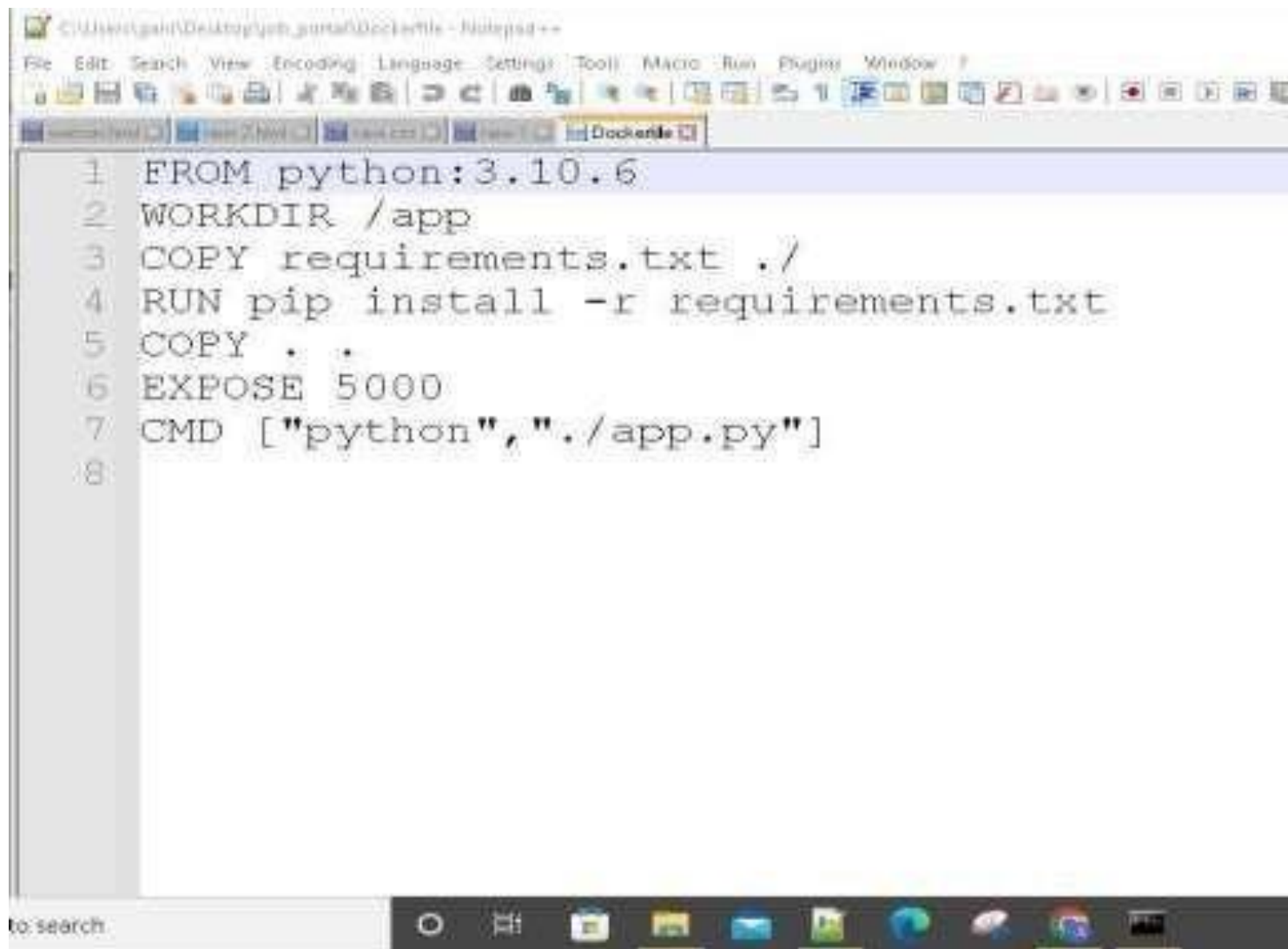
Connected to Hub



### **Question-2:**

**Create a docker file for the jobportal application and deploy it in docker application.**

**Creating a docker file for the jobportal application**



```
1 FROM python:3.10.6
2 WORKDIR /app
3 COPY requirements.txt ./
4 RUN pip install -r requirements.txt
5 COPY . .
6 EXPOSE 5000
7 CMD ["python", "./app.py"]
8
```

deploy in in dokcer application

 Select C:\Windows\System32\cmd.exe

C:\Users\lganl\Desktop\job\_portal&gt;cd ...

C:\Users\ngan\Desktop>cd job\_portal

```
C:\Users\yand\Desktop\job_portal>docker build -t job_portal
"docker build" requires exactly 1 argument.
See 'docker build --help'.
```

```
docker: docker build [OPTIONS] PATH | URL | -
```

Hold an image from a CochraneFile

C:\Users\ganil\Desktop\job\_portal\dir

Volume in drive C has no label.

Volume Serial Number is: 8643-1188

Directory of C:\Users\lgant\Desktop\job\_portal

```

10/25/2022 04:58 PM <DIR>
10/25/2022 04:58 PM <DIR>
10/25/2022 04:11 PM 320 app.py
10/22/2022 10:48 PM 140 Dockerfile
10/23/2022 10:40 PM 5 requirements.txt
10/25/2022 04:53 PM <DIR> static
10/25/2022 04:53 PM <DIR> templates
10/25/2022 04:53 PM <DIR> _pyscche_
      3 file(s)          474 bytes
      5 dir(s)      77,847,934 bytes free

```

```
C:\Users\vgan\Documents\job_portal\docker build -t job_portal:
invalid argument "job_portal:" for "-t, --tag" flag: invalid reference format
See 'docker build --help'.
```

```
C:\Users\gan\l\Desktop\job_portal>docker build -t job_portal .
```

[+] Building 007.03 (11/11) FINISHED

[Downloaded from www.ascp.com at 2013-09-11](#)

— <http://www.fishbase.org> — <http://www.fishbase.org> — <http://www.fishbase.org>

1953-1957 1958-1962 1963-1967 1968-1972 1973-1977 1978-1982 1983-1987 1988-1992 1993-1997 1998-2002 2003-2007 2008-2012 2013-2017 2018-2022 2023-2027 2028-2032 2033-2037 2038-2042 2043-2047 2048-2052 2053-2057 2058-2062 2063-2067 2068-2072 2073-2077 2078-2082 2083-2087 2088-2092 2093-2097 2098-2102 2103-2107 2108-2112 2113-2117 2118-2122 2123-2127 2128-2132 2133-2137 2138-2142 2143-2147 2148-2152 2153-2157 2158-2162 2163-2167 2168-2172 2173-2177 2178-2182 2183-2187 2188-2192 2193-2197 2198-2202 2203-2207 2208-2212 2213-2217 2218-2222 2223-2227 2228-2232 2233-2237 2238-2242 2243-2247 2248-2252 2253-2257 2258-2262 2263-2267 2268-2272 2273-2277 2278-2282 2283-2287 2288-2292 2293-2297 2298-2302 2303-2307 2308-2312 2313-2317 2318-2322 2323-2327 2328-2332 2333-2337 2338-2342 2343-2347 2348-2352 2353-2357 2358-2362 2363-2367 2368-2372 2373-2377 2378-2382 2383-2387 2388-2392 2393-2397 2398-2402 2403-2407 2408-2412 2413-2417 2418-2422 2423-2427 2428-2432 2433-2437 2438-2442 2443-2447 2448-2452 2453-2457 2458-2462 2463-2467 2468-2472 2473-2477 2478-2482 2483-2487 2488-2492 2493-2497 2498-2502 2503-2507 2508-2512 2513-2517 2518-2522 2523-2527 2528-2532 2533-2537 2538-2542 2543-2547 2548-2552 2553-2557 2558-2562 2563-2567 2568-2572 2573-2577 2578-2582 2583-2587 2588-2592 2593-2597 2598-2602 2603-2607 2608-2612 2613-2617 2618-2622 2623-2627 2628-2632 2633-2637 2638-2642 2643-2647 2648-2652 2653-2657 2658-2662 2663-2667 2668-2672 2673-2677 2678-2682 2683-2687 2688-2692 2693-2697 2698-2702 2703-2707 2708-2712 2713-2717 2718-2722 2723-2727 2728-2732 2733-2737 2738-2742 2743-2747 2748-2752 2753-2757 2758-2762 2763-2767 2768-2772 2773-2777 2778-2782 2783-2787 2788-2792 2793-2797 2798-2802 2803-2807 2808-2812 2813-2817 2818-2822 2823-2827 2828-2832 2833-2837 2838-2842 2843-2847 2848-2852 2853-2857 2858-2862 2863-2867 2868-2872 2873-2877 2878-2882 2883-2887 2888-2892 2893-2897 2898-2902 2903-2907 2908-2912 2913-2917 2918-2922 2923-2927 2928-2932 2933-2937 2938-2942 2943-2947 2948-2952 2953-2957 2958-2962 2963-2967 2968-2972 2973-2977 2978-2982 2983-2987 2988-2992 2993-2997 2998-3002 3003-3007 3008-3012 3013-3017 3018-3022 3023-3027 3028-3032 3033-3037 3038-3042 3043-3047 3048-3052 3053-3057 3058-3062 3063-3067 3068-3072 3073-3077 3078-3082 3083-3087 3088-3092 3093-3097 3098-3102 3103-3107 3108-3112 3113-3117 3118-3122 3123-3127 3128-3132 3133-3137 3138-3142 3143-3147 3148-3152 3153-3157 3158-3162 3163-3167 3168-3172 3173-3177 3178-3182 3183-3187 3188-3192 3193-3197 3198-3202 3203-3207 3208-3212 3213-3217 3218-3222 3223-3227 3228-3232 3233-3237 3238-3242 3243-3247 3248-3252 3253-3257 3258-3262 3263-3267 3268-3272 3273-3277 3278-3282 3283-3287 3288-3292 3293-3297 3298-3302 3303-3307 3308-3312 3313-3317 3318-3322 3323-3327 3328-3332 3333-3337 3338-3342 3343-3347 3348-3352 3353-3357 3358-3362 3363-3367 3368-3372 3373-3377 3378-3382 3383-3387 3388-3392 3393-3397 3398-3402 3403-3407 3408-3412 3413-3417 3418-3422 3423-3427 3428-3432 3433-3437 3438-3442 3443-3447 3448-3452 3453-3457 3458-3462 3463-3467 3468-3472 3473-3477 3478-3482 3483-3487 3488-3492 3493-3497 3498-3502 3503-3507 3508-3512 3513-3517 3518-3522 3523-3527 3528-3532 3533-3537 3538-3542 3543-3547 3548-3552 3553-3557 3558-3562 3563-3567 3568-3572 3573-3577 3578-3582 3583-3587 3588-3592 3593-3597 3598-3602 3603-3607 3608-3612 3613-3617 3618-3622 3623-3627 3628-3632 3633-3637 3638-3642 3643-3647 3648-3652 3653-3657 3658-3662 3663-3667 3668-3672 3673-3677 3678-3682 3683-3687 3688-3692 3693-3697 3698-3702 3703-3707 3708-3712 3713-3717 3718-3722 3723-3727 3728-3732 3733-3737 3738-3742 3743-3747 3748-3752 3753-3757 3758-3762 3763-3767 3768-3772 3773-3777 3778-3782 3783-3787 3788-3792 3793-3797 3798-3802 3803-3807 3808-3812 3813-3817 3818-3822 3823-3827 3828-3832 3833-3837 3838-3842 3843-3847 3848-3852 3853-3857 3858-3862 3863-3867 3868-3872 3873-3877 3878-3882 3883-3887 3888-3892 3893-3897 3898-3902 3903-3907 3908-3912 3913-3917 3918-3922 3923-3927 3928-3932 3933-3937 3938-3942 3943-3947 3948-3952 3953-3957 3958-3962 3963-3967 3968-3972 3973-3977 3978-3982 3983-3987 3988-3992 3993-3997 3998

— **STANDARD CONTRACT** — CONTRACT 311

[illegible]

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DOI: 10.1002/for

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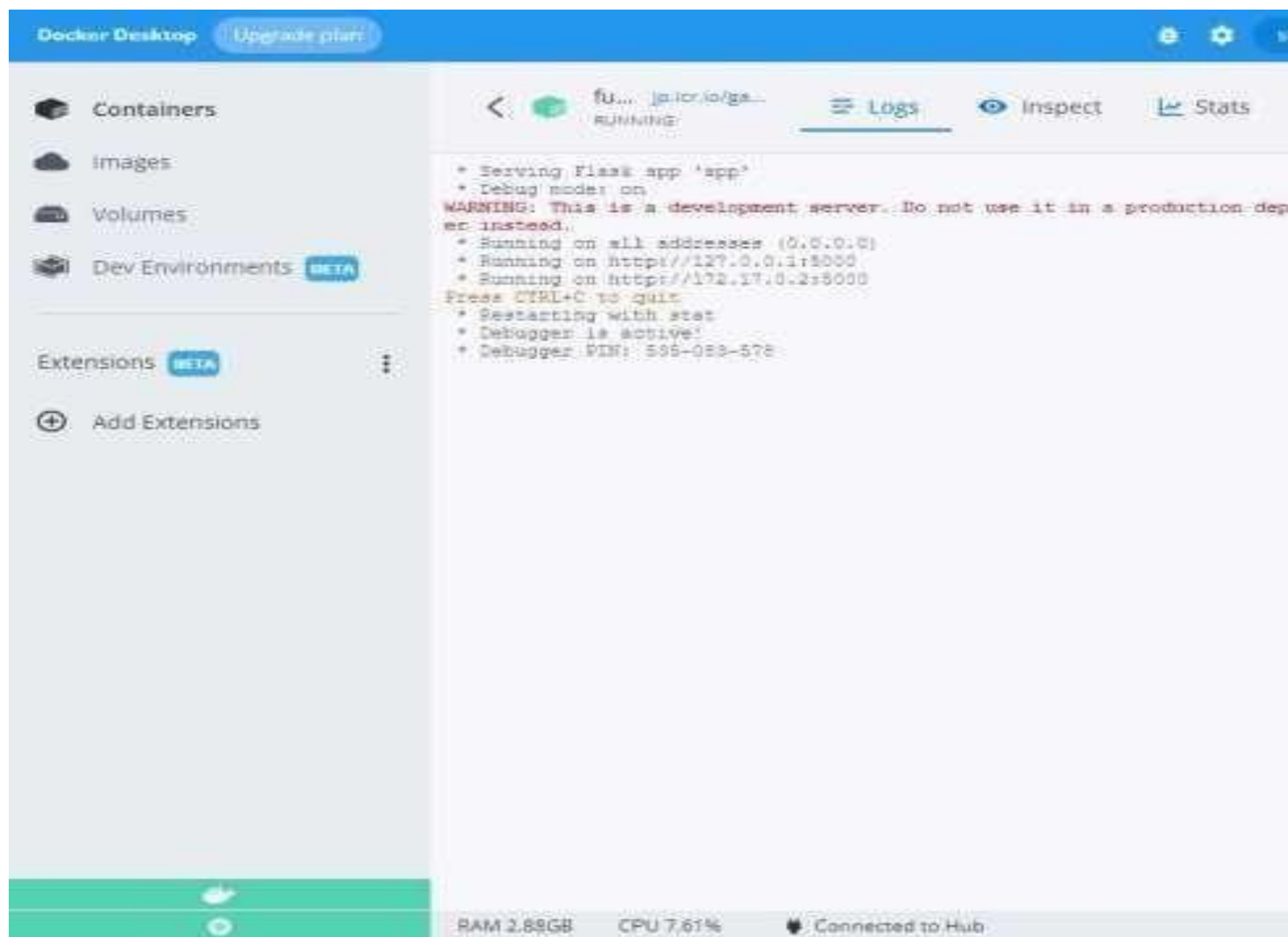
355 <http://www.elsevier.com/locate/jbiotec>

[illegible]

```
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
C:\Users\gani\Desktop\job_portals>
```







**Question-3:**

**Create aIbm container registry and deploy helloworld app or  
jobportalapp create a ibm container registry**



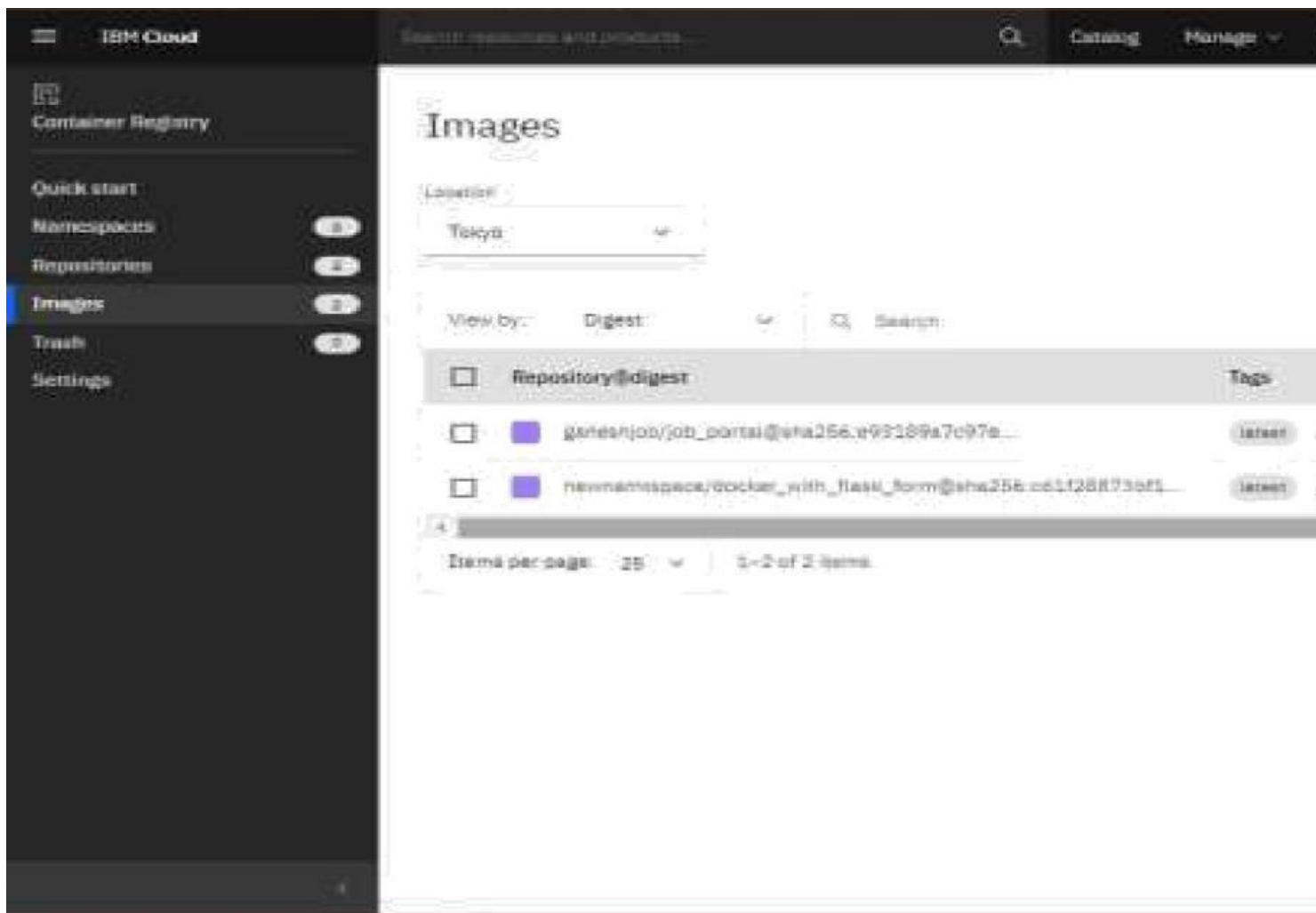
```

C:\Windows\system32\cmd.exe
54acb5a6fa8b: Retrying in 1 second
8d51c618126f: Retrying in 1 second
9ff6e4d6744: Waiting
a80d1d47b541: Waiting
055ed1b74428: Waiting
Failed to lookup host: jp.lcr.io

C:\Users\gan1\Desktop\job_portal\docker push jp.lcr.io/ganeshjob/job_portal
Using default tag: latest
The push refers to repository [jp.lcr.io/ganeshjob/job_portal]
15e3b1584025: layer already exists
80e94fb5e186: Pushed
48c2a7a4c12b: layer already exists
9b72c7835466: layer already exists
bfcd6b8136e: layer already exists
1f123186824c: layer already exists
3d5eb1152931: Pushed
180796cdf3b1: Pushed
54acb5a6fa8b: Retrying in 1 second
8d51c618126f: Pushed
9ff6e4d6744: Pushed
a80d1d47b541: Pushed
055ed1b74428: Pushing [=====] 89.88MB/134MB
^C
C:\Users\gan1\Desktop\job_portal\docker push jp.lcr.io/ganeshjob/job_portal
Using default tag: latest
The push refers to repository [jp.lcr.io/ganeshjob/job_portal]
15e3b1584025: layer already exists
80e94fb5e186: layer already exists
48c2a7a4c12b: layer already exists
9b72c7835466: layer already exists
bfcd6b8136e: layer already exists
1f123186824c: layer already exists
3d5eb1152931: layer already exists
180796cdf3b1: layer already exists
54acb5a6fa8b: Pushed
8d51c618126f: layer already exists
9ff6e4d6744: layer already exists
a80d1d47b541: layer already exists
055ed1b74428: Pushed
latest: digest: sha256:e91189a7c970eb99086668a54e896cf61aa0eda909998c8c7a21a7a7961fc207 size: 3852

C:\Users\gan1\Desktop\job_portal:
C:\Users\gan1\Desktop\job_portal:

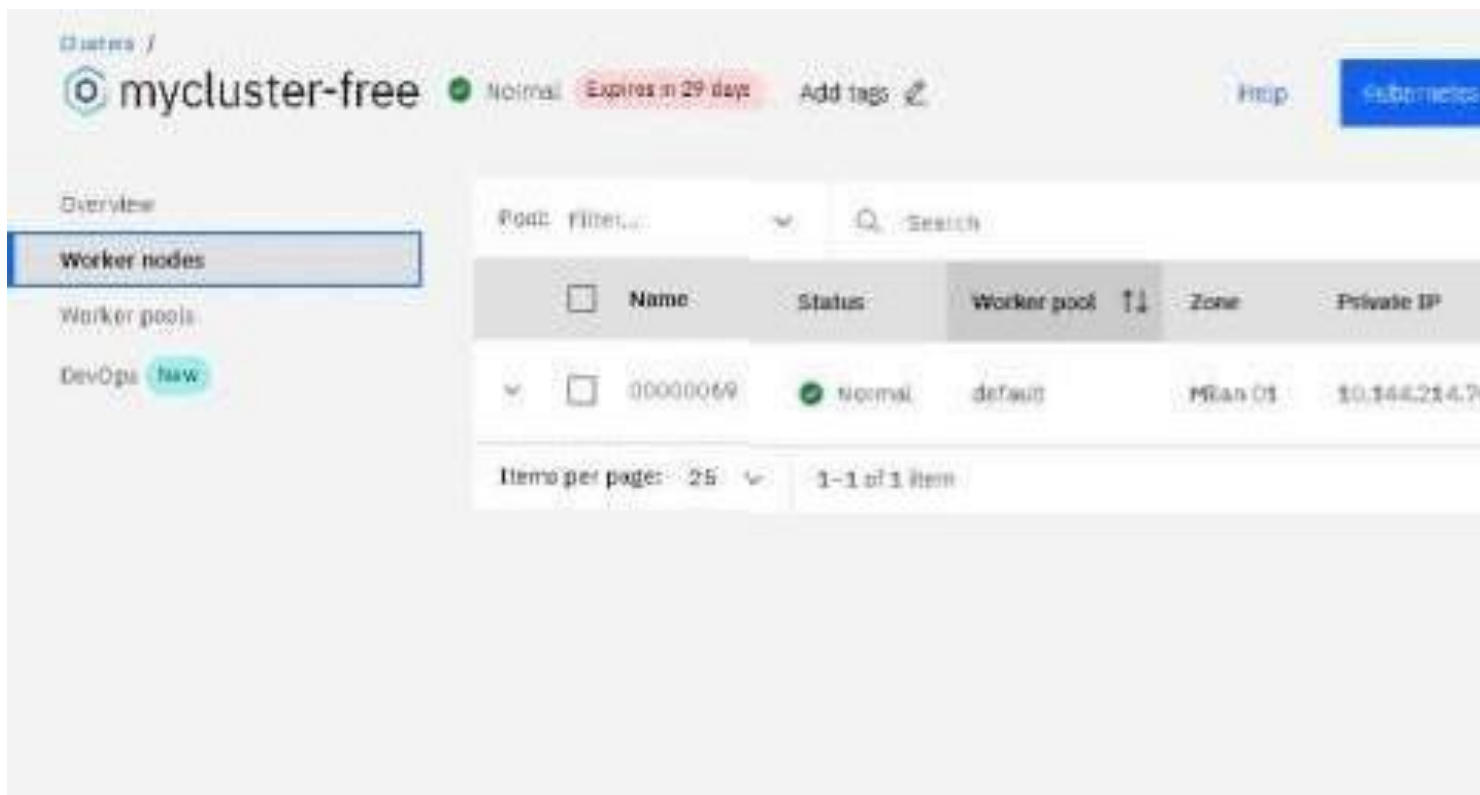
```



#### **Question-4:**

**Create a kubernetes cluster in ibm cloud and deploy helloworld image or jobportal image and also expose the same app to run in noteport**

**Creating a kubernetes cluster in ibm cloud**



**deploy helloworld image or jobportal image and also expose the same app to run in noteport**

```
trying Flask app 'app'
bug mode: on
[WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.]
Running on all addresses (0.0.0.0)
Running on http://127.0.0.1:5000
Running on http://172.30.0.1:5000
Press CTRL+C to quit
Starting with stat
bugger is active!
bugger PIN: 110-487-140
```

```

C:\Windows\System32\cmd.exe
C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
The Service "flask-service" is invalid: metadata.name: Invalid value: "flask-service": a DNS-1035 label must consist of lower case alphanumeric characters or '-', start with an alphabetic character, and end with an alphanumeric character (e.g. "my-name", or "abc-123", regex used for validation is "[a-z]([-a-z0-9]*[a-z0-9])?")
C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
The Service "flask-service" is invalid: metadata.name: Invalid value: "flask-service": a DNS-1035 label must consist of lower case alphanumeric characters or '-', start with an alphabetic character, and end with an alphanumeric character (e.g. "my-name", or "abc-123", regex used for validation is "[a-z]([-a-z0-9]*[a-z0-9])?")
C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
The Service "flask-service" is invalid: metadata.name: Invalid value: "flask-service": a DNS-1035 label must consist of lower case alphanumeric characters or '-', start with an alphabetic character, and end with an alphanumeric character (e.g. "my-name", or "abc-123", regex used for validation is "[a-z]([-a-z0-9]*[a-z0-9])?")
C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
error from server (AlreadyExists): services "flask-service" already exists
C:\Windows\system32\
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
^C
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
No resources found in kubernetes-dashboard namespace.
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
No resources found in kubernetes-dashboard namespace.
C:\Windows\system32\kubectl proxy
Starting to serve on 127.0.0.1:8001
^C
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
^C
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
No resources found in kubernetes-dashboard namespace.
C:\Windows\system32\kubectl -n kubernetes-dashboard get pods
No resources found in kubernetes-dashboard namespace.
C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
error from server (AlreadyExists): services "flask-service" already exists
C:\Windows\system32\kubectl get ing
NAME          CLASS    HOSTS      ADDRESS      PORTS      AGE
flask-app-ingress     *          *            80         27m
C:\Windows\system32\kubectl get svc
NAME          TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)      AGE

```